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### Impact of Prior Clinical Experience on Attitudes and Expectations of First-Year Graduate Students in Clinical Practicum

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**UNIVERSITY HONORS PROGRAM**

**SENIOR PROJECT – APPROVAL**

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PROJECT TITLE: Impact of Prior Clinical Experience on Attitudes  
and Expectations of First-Year Graduate Students in Clinical  
Practicum

I have reviewed this completed senior honors thesis with this student and certify that it is a project commensurate with honors level undergraduate research in this field.

Signed: Ann L. Michael, Faculty Mentor

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Comments (Optional):

Impact of Prior Clinical Experience on Attitudes and Expectations  
of First-Year Graduate Students in Clinical Practicum

Megan C. Skinner

Department of Audiology and Speech Pathology  
University of Tennessee, Knoxville

May, 2004

In partial fulfillment of The Bachelor of Arts Degree

Impact of Prior Clinical Experience on Attitudes and Expectations  
of First-Year Graduate Students in Clinical Practicum

To date there has been little research in the field of Speech-Language Pathology regarding the effect of undergraduate clinical experience on students' expectations or attitudes toward clinical assignments in graduate school. Current guidelines from the professional organization, American Speech-Language and Hearing Association (ASHA), allow the transfer of fifty clinical hours from undergraduate clinical work toward the total 275 clinical hours needed in graduate school to fulfill requirements for the Certificate of Clinical Competence (CCC) ([www.asha.org](http://www.asha.org)). Students in some undergraduate programs have the opportunity to gain clinical experience, while students in other university settings do not. The result is that a class of entering graduate students will be mixed in terms of experience, some with clinical experience and some without. Most students will enter the graduate clinical education programs with similar expectations despite their past clinical experiences. Even so, it is understandable how students with previous clinical experience could view themselves as having an advantage over those without; similarly, students without experience could see themselves as being disadvantaged. The goal of this study is to clarify this issue.

Susan Moon Meyer (1998) surveyed beginning graduate students about to enter their first clinical practicum. She found "that the students perceived a disjunction between the knowledge they had and the knowledge they believed

was needed to perform successfully in the clinical situation.” (p. xvii). Indeed, Meyer stated that the most frequently cited problem for these students was the prevalence of negative feelings. Similarly, Chan, Carter, and McAllister (1994) report that

anxiety appears to have an impact on the nature and quality of students’ clinical learning experiences. Therefore, identification of both the level of anxiety experienced and the factors contributing significantly to the anxiety may facilitate constructive modification of the clinical learning experience. (p. 126)

These findings suggest that if prior undergraduate experience offers students confidence and reduces anxiety then it can be advantageous. Here we will define "clinical education" as the diagnosis/evaluation of clients, creation and writing of appropriate goals for clients, administration of therapy itself, appropriate post-session paperwork, and maintaining proper contact with supervisors.

Bethune and Jackling (1997) examined postgraduate nursing students’ perceptions of their growth in critical thinking skills after being engaged in off-campus studies (akin to clinical practicum for speech pathology students). Using survey methodology to collect data, their goal was to determine differences between those students with prior university experience and those without. Rather than assess actual ‘knowledge’, they sought to examine participants’ attitudes and self-perceptions about their knowledge. Ultimately, they concluded that for most skills assessed, the difference between the two groups was not marked. A small number of skills were shown to increase more in the group with prior experience; researchers believe this is because students who had previous

experience may have already gained the skill being assessed and were thus more adept at it and more likely to perceive that their skill had improved. These results are worth noting in light of what we know about the role of prior experience, summarized in the paragraphs to follow, and merit bearing in mind because of the similarities the study has to this one.

There are two areas of research in cognitive science that correspond to the relationship of clinical issues taught in the classroom and those taught in the clinical setting. The first is the relationship of factual knowledge (sometimes called “declarative knowledge”) to procedural knowledge as defined by Anderson (1990). The integration of factual knowledge and procedural knowledge is key for clinical success. An easily relatable example of this interaction is found in learning to drive a car. Countless hours are put into memorizing various facts and statistics about state laws and vehicle operation (i.e. factual knowledge) in order to pass the written examination, yet it is not until one actually gets in the car and drives that the relationship between knowing and doing are integrated. Similarly, students in clinical practicum are required to bridge the gap in factual knowledge learned in the classroom and clinic (procedural) knowledge learned in clinical interactions.

The second area in cognitive science pertinent to this study is the role of prior knowledge on learning. In his book *Human Cognition: Learning, Understanding and Remembering*, John Bransford (1979) writes that “effective learning is always a function of relationships among particular inputs and

currently activated knowledge" (p. 141). "Experiments by Johnston and Heinz (1974) suggest that our abilities to coordinate several tasks are indeed influenced by the familiarity of the material." (Bransford p. 25). In an experiment that examined sentence recall by Johnson, Doll, Lapinsky, and Bransford (1974), researchers found that students with background information for a given sentence could recall it more quickly than those students without the appropriately activated knowledge. Therefore, Johnson and his colleagues concluded that effective performance must be a result of the interaction between current inputs and what one already knows. These findings are similar to those of the "Balloon Study" by Bransford and Johnson (1972). While these examples focus on simple memory recall, Bransford does ultimately conclude that "the availability of appropriate past knowledge also has implications for evaluating the role of frequency of experience and practice" (p. 164). Based on these findings, the question is does undergraduate clinical experience provide a higher confidence for entering graduate students.

Research suggests that a major goal of clinical education is to integrate factual knowledge learned in the classroom to procedural knowledge, that is the engagement in clinical activities. There is evidence that the role of prior knowledge or prior experience can reduce anxiety and create a more positive learning opportunity for students. This is the foundation for investigating the role of undergraduate clinical experience on graduate clinical experience. More specifically the question is, "What is the role of prior clinical experience at the

undergraduate level on the attitudes and expectations for clinical work at the graduate level?"

## METHOD

### Participants

Twenty-four first year speech-language pathology graduate students enrolled in the Clinical Practicum in The Department of Audiology and Speech Pathology at the University of Tennessee at Knoxville were the participants in this study. Students enrolled in clinical practicum meet weekly and it was during this meeting time that students participated in the study. Twenty-four students completed the first survey presented on the first day of class and twenty students were present to participate in the final administration of the survey on the last day of class. Based on participants' response to the first question "I received \_\_\_\_ (number) clinical hours in my Undergraduate/Leveling Program," responses were divided into two groups: those *with* undergraduate clinical experience and those *without*. An answer of "1 hour of experience" or higher placed the student into the group with prior experience ("Group One") and an answer of "0" placed the student into the group without experience ("Group Two"). Experience for Group One ranged from 3 to 160 hours with most students having between 9 and 25 hours.

### Materials

A 14-item questionnaire was designed to measure student responses to feelings and attitudes about aspects of clinical work and general clinical issues.



According to Schiavetti and Metz (2002), "A survey research strategy is used to provide a detailed inspection of the prevalence of...attitudes in a given environment by asking people about them rather than observing them directly." (pp. 64). See Appendix I for a complete list of questions included in the survey.

### Design and Procedure

In order to track the changes in each group's feelings and attitudes over the course of the semester, the same survey was administered at the beginning and end of the semester: the first class and the last class. The student-researcher received permission from the instructor to attend class and to present the survey to the students. The survey was administered with the instructions, "Please answer all questions honestly and to the best of your abilities based on your current point of view." As previously mentioned, surveys were divided only after being completed, based on their answer to the number of clinical hours received prior to entering graduate school.

### Analysis

Student responses to the 14-item questionnaire were categorized into two groups, those with previous clinical experience (Group One) and students without previous clinical experience (Group Two). A three-way analysis of variance (ANOVA) was used to determine differences in responses between the two groups. The dependent variable was student numeric response to the questions and the three independent variables were time, group, and questions.

Huynh-Feldt was used to analysis the interactions of the two independent variables and a principal component analysis was used to determine underlying factors responsible for subject responses. All analyses were conducted at .05 level of significance.

## RESULTS AND DISCUSSION

Results of the analysis variance [ $F(1,15) = 0.765, p = 0.396$ ] revealed no significant difference between Group One and Group Two on their responses to the questions. This suggests that students with previous clinical experience enter their graduate practicum experiences with attitudes and emotions similar to those students without clinical experience. Even though the two groups respond similarly to questions about anxiety, it may be that the two groups are anxious for different reasons. For those with prior experience, this suggests that they diminish the role of their undergraduate experience. It is possible they are concerned that procedures at the unfamiliar graduate clinic will be too different from the experience at their undergraduate institution, forcing them to learn and adjust to a new clinical format. For students with no experience, the anxiety may be related to their first clinical experience as well as anxieties related to graduate studies. Likewise, responses for questions assessing general expectations, confidence in their own academic knowledge and writing skills/abilities, and comfort with understanding ethics and the overall clinical process did not exhibit between group differences.

Interestingly, there was a significant interaction [ $F(10.341, 155.11) = 3.436$ ,  $p < 0.001$ ] for Time (beginning and end of the semester) and the Questions.

Paired  $t$  tests confirmed that students' responses to questions 1, 2, 5, & 7 were, in fact, different at the beginning of the semester as compared to responses made the end of the semester (See Table 1).

**Table 1**  
Comparison of Means Between Surveys for Questions with Significant Interaction

Question Number	1 <sup>st</sup> Survey Mean	2 <sup>nd</sup> Survey Mean
1	1.82 (sd 1.19)	2.53 (sd 1.12)
2	2.65 (sd .70)	2.18 (sd .53)
5	3.18 (sd .88)	2.41 (sd .94)
7	3.59 (sd 1.18)	2.71 (sd 1.31)

Question number one, "I am anxious about completing my first clinical assignment in graduate school." There was an overall shift in responses showing less agreement over time (mean of 1.82 to 2.53). Analysis of question two, "I am comfortable with my understanding of the clinical process." Means from each survey indicate a shifted from 2.65 to 2.18. Question five, "I am confident that I know how to write appropriate clinical objectives for my client," aimed to evaluate student's self-perceptions about their clinical writing skills. The mean comparison reveals a shift of 3.18 to 2.41 average. Hence it appears that students' confidence about their own writing abilities increased as the semester progressed. The mean decreased and moved towards "Agree" on the scale, revealing more confidence. The final question, number seven, "I am concerned about working with clients from different ethnic/cultural backgrounds." Typically, one would expect responses to change, over time, from concerned to

less concerned. In actuality, the analysis reveals change (mean 3.59 to 2.71) that indicates a movement toward greater concern.

A principle component analyses was completed in order to determine the underlying factors to be considered as motivation for change over time. Results indicated that four questions (1, 2, 5 & 7) accounted for fifty-percent of the variance. As discussed earlier, the difference in initial anxiety levels between groups was not significant. Instead, question one reveals an overall shift in anxiety levels for both groups from being more anxious to less anxious. This is not entirely surprising when one considers Meyer's belief that students begin graduate school with higher anxiety levels overall. It appears that as anxiety decreased over the course of the semester, comfort with clinical procedures (as assessed by question two) increased, as would be expected. It is projected for students in both groups to become more familiar with procedures as time progressed thus increasing their comfort level and decreasing their anxiety.

Confidence with their abilities over time or with more experience appears to be another underlying factor. Specifically, knowing how to write appropriate objectives for clients is an area in which students' responses indicate a shift from less confidence to more confidence by the end of the semester. While it may be surprising that there was no significant difference between the group with prior experience and the group without, the overall move towards increased self-assurance at the end of the semester is anticipated.

Perhaps the most surprising of the four questions, is number 7, which addresses the issue of working with clients of different ethnical/cultural backgrounds. The change from being *less* concerned to *more* concerned about working with this population is actually opposite what we would expect to occur. This could be explained by the objectivity a new clinical student presumes herself to have when entering graduate school. However, after interacting with clients of different ethnic and cultural backgrounds, or talking with fellow students who are in clinic with them and experiencing difficulty, they could discover that it is more challenging than they had originally believed.

Suggestions for future research include expanding the size of the study to incorporate a more extensive subject base that would assess a wider range of students at institutions across the United States. It may also prove beneficial to track individual subjects over a longer period of time, in other words a longitudinal study exploring the development of specific skills of students from their commencement of graduate school through to the completion of their studies.

Appendix I

***Questionnaire for Students in First Semester Graduate Clinical Practicum***

I took a Clinical Methods Class in my Undergraduate/Leveling Program. \_\_\_\_ Yes \_\_\_\_ No

I received \_\_\_\_\_ (number) clinical hours in my Undergraduate/Leveling Program.

***Please use this scale to respond to the following questions:***

Strongly Agree – 1    Agree – 2    Neutral – 3    Disagree – 4    Strongly Disagree – 5

1. I am anxious about completing my first clinical assignment in graduate school.

1                      2                      3                      4                      5

2. I am comfortable with my understanding of the clinical process.

1                      2                      3                      4                      5

3. I am confident that my academic knowledge will serve me adequately in the clinic.

1                      2                      3                      4                      5

4. I expect to enjoy my clinical work this semester.

1                      2                      3                      4                      5

5. I am confident that I will know how to write appropriate clinical objectives for my client.

1                      2                      3                      4                      5

6. I expect that my personality will be a great asset to me during my clinical work.

1                      2                      3                      4                      5

7. I am concerned about working with clients from different ethnic/cultural backgrounds.

1                      2                      3                      4                      5

8. I am concerned about my relationship with my clinical supervisors.

1                      2                      3                      4                      5

9. I expect the Department to support me if I have difficulties in the clinic.

1                      2                      3                      4                      5

10. I understand the role of ethical conduct in the clinical setting.

1                      2                      3                      4                      5

11. I don't expect clinical work to include a heavy writing requirement.

1                      2                      3                      4                      5

12. I am confident that my writing skills are sufficient for clinical work.

1                      2                      3                      4                      5

13. I expect to make an "A" as my final grade in Clinical Practicum.

1                      2                      3                      4                      5

14. I am comfortable asking for help in all aspects of my clinical work.

1                      2                      3                      4                      5

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